

In the study of Indian cattle crop up numbers of questions of the utmost practical and theoretical importance into which I must not enter here, but must ask you when you read in the newspapers about traffic in hides, horns, bones, and hoofs, or concerning live stock sales, the great fodder question, vaccination of cattle, inspection of dairies, improvement of stock, cruelty to cart bullocks, cattle poisoning, ghee adulteration, meat markets, and murrains to take these notices as evidences of the great part Indian cattle have in the welfare of this grand and progressive country.

CORRESPONDENCE.

THE *ECHIS CARINATA* AND ITS ALLEGED ANTIDOTE.

SIR,—The appalling statistics of the mortality from the bite of the above snake, brought to notice by Mr. G. W. Vidal, C. S., at the recent meeting of the Bombay Natural History Society, make one shudder. It is to be hoped that Mr. Vidal will continue his interesting narrative, and let us have some authentic information on the supposed antidote discovered by a medical officer at the above civil station. In the interim please allow me to say a few words anent the “bite of the *echis carinata* and the antidote.”

The bite from the *echis* (*phursa* or *kapar*) produces peculiar symptoms to any other of the ophidian *venenose* family; its *virus* liquefies, while the others coagulate the blood. Besides, a severe bite from an *echis* causes excessive hæmorrhage from the part bitten, from the gums, and from any eruption that may be on the body. Death ensues from continuous bleeding, and, I am told, is accelerated when ammonia is administered. Of course, I am open to correction.

Mr. Vidal, C. S., is doubtless aware that there exists a shrub—*Pogostemon purpuricaulis*—on the Western Ghats and at Poona, the root of which, if masticated, and also if applied to the punctured part like a plaster, it will almost instantly allay the hæmorrhage, in fact, I have learnt, it acts like a styptical charm, but only in case of the *echis*? Has the root been tried, if so, what has been the result? I have not seen Dr. Dymock's book on Indian Botany; perhaps the properties of this apparently valuable medical plant has been fully noticed by him. Mr. G. Carstensen, of the Victoria Gardens, will be able to further enlighten us most probably?

The *Pogostemon purpuricaulis*—after a great deal of trouble (qv. *Asian*, 29th October last)—I find to have a number of *aliases* or pet names, so commonly

given now-a-days by our modern botanists. Since Drury and Birdwood's (Vegetable Products) and Loudon mention nothing about this shrub, I communicated (through the *Asian*) to "Smoothbore," and am indebted to him for the following synonyms :—

<i>Pogostemon purpuricaulis</i>	Dalz. in Hook.
Do. <i>purpuricale</i>	Drury, Indian Flora, Vol. II., p. 59.
Do. <i>parviflorus</i>	Benth. in Wall.
Do. <i>pubescens</i>	Benth. in D. C. L.
Do. <i>fontescras</i>	Graham's Cat., Bombay, pl. 149.
Do. <i>intermedius</i>	Wall Cat. 2327.
<i>Pangla</i>	Bombay Pres.

The Secretary of the "Botanical Section, Bombay Natural History Society," I hope, will be good enough to analyse the *root* of this plant, which it is supposed to be a styptical agent, and let the members know if the alleged antidote has been proved to be efficacious in the bite of the *Echis carinata*, known to Anglo-Indians as the deadly "carpet snake."* I came to know of this plant by a friend wishing to know "What root of a shrub has styptical properties for the *echis*?"

The shrub is about five feet high, with leaves about eight inches long and velvety back; the bark is sometimes of a dark purple hue, emitting when crushed a black currant-like odour,—Yours, &c.,

N.-W. P. Jan. 20.

F. R.

SIR,—As "F. R." rightly supposes, in his letter published in your issue of the 25th January, I am well aware of the existence of the shrub (*Pogostemon purpuricaulis*), and of its empirical use in cases of echis bite. In the course of the last ten years or so, I have on more than one occasion tried to direct attention to this shrub, and to stimulate further inquiry as to its supposed value as a styptic. In particular I may refer "F. R."—as he has apparently not seen it—to a note contributed to the *Asian*, I think in 1881, but haven't the files to refer to here—in which I gave all the information then available on the subject.

As far as I know, nothing further has since been elicited. I am glad, however, to see that attention has again been drawn to the matter.

The use of the root of this plant to stop the hæmorrhage, which is the most troublesome and dangerous symptom of echis bite was, if I remember right, first brought to light when Mr. J. Elphinston was Collector of Ratnagiri, about 1873 or 1874. A clerk in the Collector's office was bitten by an echis, and a Brahman, who was called in to treat the patient, produced some root, from which he prepared a paste for external, and a decoction for internal, application. This treatment was so successful in stopping the bleeding, that Mr. Elphinston made inquiries about

* The popular name of *Carpet Snake* is used by Anglo-Indians in the most careless manner, and is generally applied to the Daboia.—ED.